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AIR CIRCULATORS



EMERSON ELECTRIC

Em. Elec. Mfg. Co.

FRANKLIN INSTITUTE
PHILADELPHIA

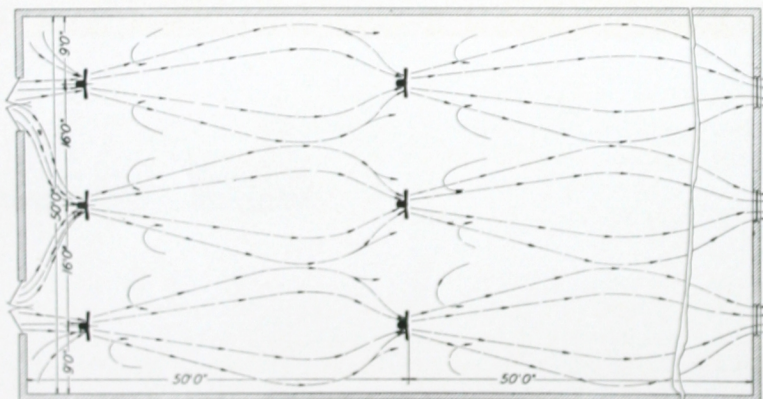


Practical Suggestions for Effective Over-all Air Circulation Control, in Large Areas, With **EMERSON-ELECTRIC AIR CIRCULATORS**

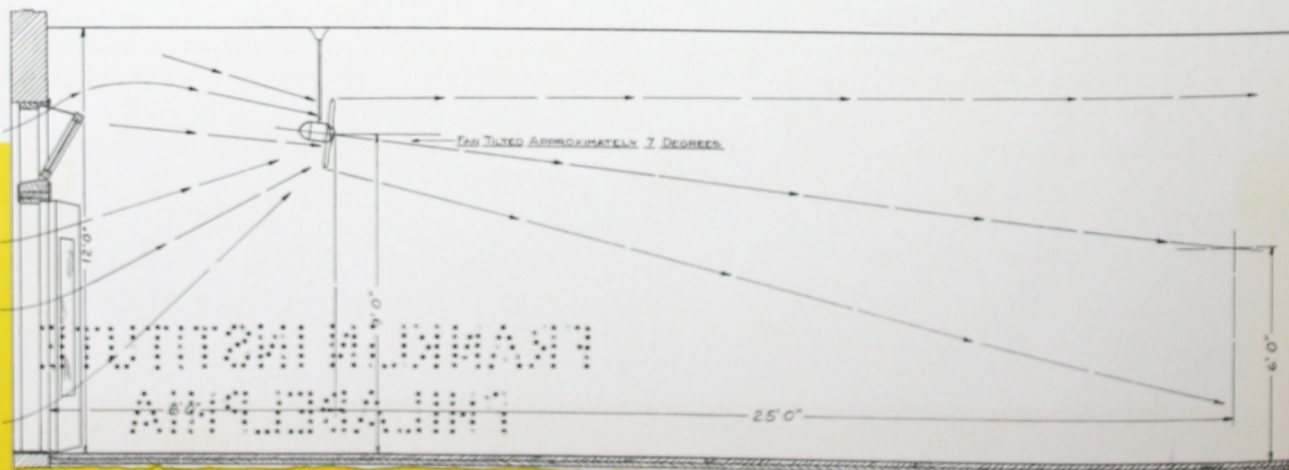
THE applications for Emerson-Electric Air Circulators are as numerous and different as stores and buildings themselves. Each installation presents its own individual problems; therefore it is not possible to formulate set rules for all uses. However, some general installation suggestions indicated by these graphs and photographs are given and should prove helpful.

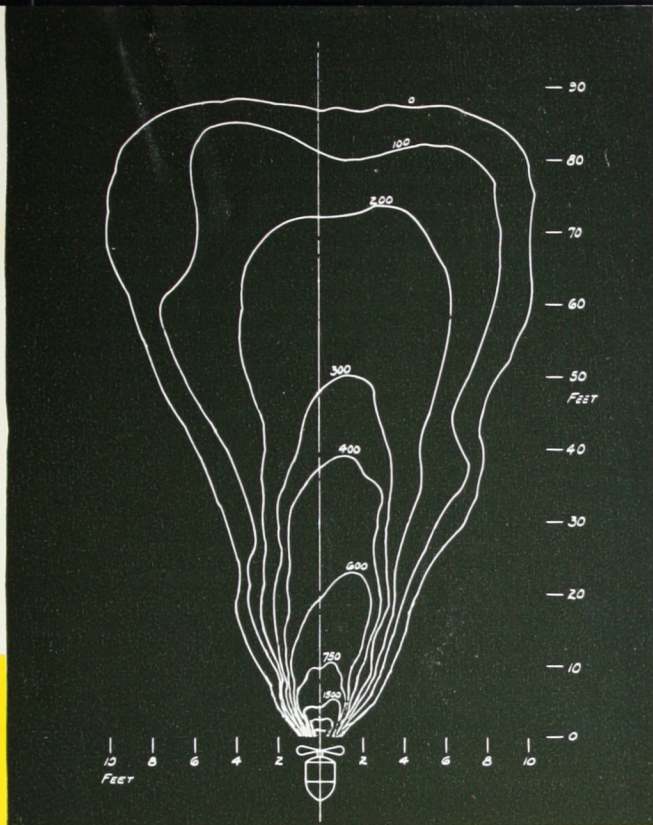
This floor plan of a store building 50 ft. x 100 ft., shows the placement of 24-inch, 2-speed Emerson-Electric Air Circulators. The fans are placed to blow from front to rear with the entry of outside air from the front doors and exhausting through windows in the rear. The location of columns, ceiling beams, and other obstructions that

may reduce the free flow of air through the building, must be taken into consideration in placing the fans. The performance curves of the two sizes of Emerson-Electric Air Circulators, in unrestricted areas, are shown on the opposite page. These should be used as a guide in determining the proper size, number and placement of fans for any contemplated installation, bearing in mind that while 24-inch fans may provide the desired volume and velocity of air motion, 30-inch fans may prove the better choice, in many instances, due to their greater capacity. It is always advisable to install adequate equipment. The difference of a few air circulators, in a large area, may have a considerable effect on the entire installation.



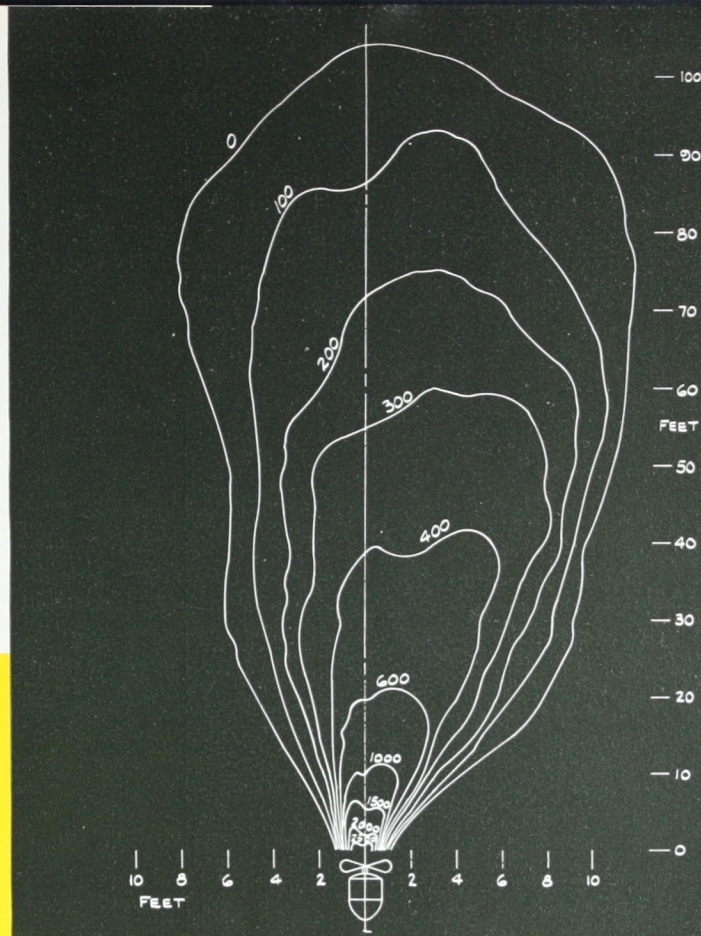
Ceiling height varies with each building; however, where possible, best results will be obtained when the fans are installed so the center of the fan is located approximately 9 feet from the floor. By tilting the fan downward at an angle of approximately 7 degrees, the fan will produce a satisfactory circulation of air at the breathing line, without causing a disturbing draft or interfering with the display of merchandise. In buildings with low ceilings, it may be desirable to mount the fans exactly horizontal or tilt them slightly upward, instead of downward, to accomplish best results. In buildings with exceptionally high ceilings, or in places where ceiling installation is not practical, one of the other three types of mountings — wall bracket, adjustable floor column, or counter column — may be used to advantage.





The air distribution of the Emerson-Electric 24-inch, two-speed A.C. and D.C. Air Circulators is shown above. They have a maximum penetration of 80 feet for an area 19 feet in width when operating at high speed.

These performance charts illustrate air distribution with the two sizes of Emerson-Electric Air Circulators. The figures indicated on the curves are readings in velocity (feet-per-minute) at various distances from the fans, with fans operating at high speed in an unobstructed area.



The air distribution of the Emerson-Electric 30-inch two-speed A.C. and D.C. Circulators give maximum penetration of 110 feet for an area 20 feet in width when operating at high speed, as shown in the above chart.

Emerson-Electric Air Circulators are recommended for all types of buildings, wherever there is need for providing cooling breezes over large areas; such as in retail stores and shops, restaurants, hotels, taverns, industrial plants, recreation buildings, churches, etc. The conventional type fan gives localized distribution of air, and even when there is a complete installation of wall or ceiling fans, frequently the addition of Emerson-Electric Air Circulators will do much to improve the ventilation and cooling results.

Emerson-Electric two-speed Air Circulators give great flexibility to the installation and permit the most economical operation. For example, most buildings accumulate hot, stagnant air overnight, making the quarters uncomfortable. First thing in the morning turn the circulators on at high speed. In a short time all dead air is removed. Then reduce the fans to low speed until later in the day,

when it may be necessary to again step them up to maximum speed. In this way, you regulate the air flow to conditions, keep the area comfortable at all times, at the lowest possible cost of operation. Continuous operation of Emerson-Electric Air Circulators at high or low speed will not injure the motors. 6000 hours (3 full seasons) of operation without re-lubrication is normal service.

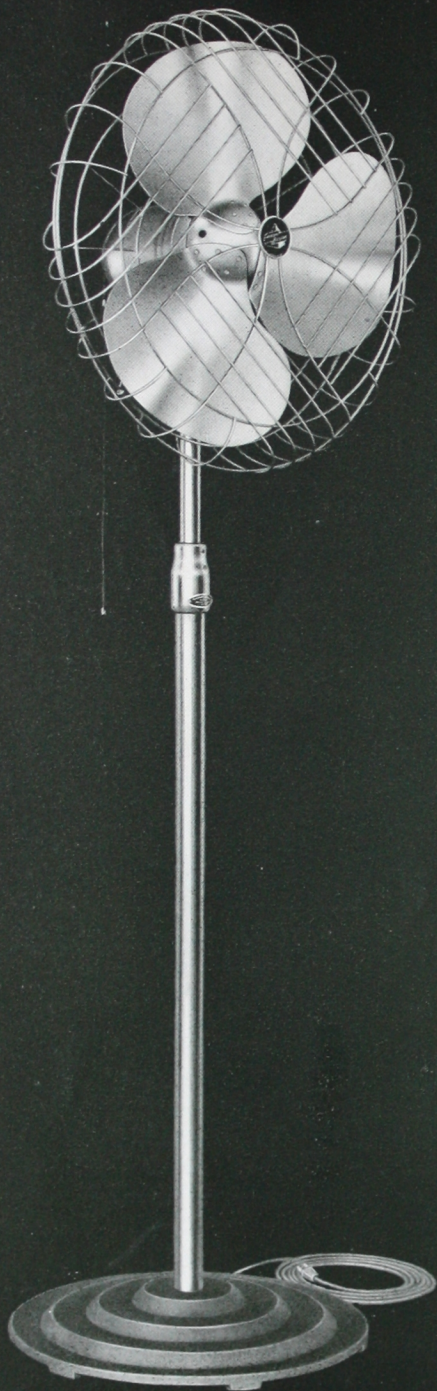
PERFORMANCE INFORMATION

Size	Type No.	Speeds	Volts	Current	R. P. M.	*Air Delivery C. F. M.	†Air Delivery C. F. M.	Maximum Velocity F. P. M.	Maximum Penetration in Feet	Maximum Distribution in Feet (Width)	Watts Input
24"	K60-SM	2	115	60 cy.	1150-750	4800-3140	6100-4000	2440	80-60	19	190-110
30"	K60-SP	2	115	60 cy.	1025-550	6000-3220	8600-4600	2525	110-60	20	300-120
24"	D60-UD	2	115	D. C.	1150-750	4800-3140	6100-4000	2440	80-60	19	230-130
30"	D60-UF	2	115	D. C.	1025-550	6000-3220	8600-4600	2525	110-60	20	260-140

*CFM—Cubic feet of air per minute, reading taken (Standard NEMA Test Method) one foot from fan.

FPM—Velocity feet per minute.

†CFM—Cubic feet of air per minute, reading taken (Standard NEMA Test Method) four feet from fan.



Complete New Line EMERSON-ELECTRIC

Air Circulators

24- and 30-inch Models

Striking appearance — new quietness — power-saving capacitor motors, on alternating current fans — new efficient type blades — just a few of the important specifications which will continue Emerson-Electric Air Circulators in the leadership for value and highest volume sales.

All models have two-speed operation, and motors are furnished with a built-in receptacle for attaching plug (plug and cord furnished with column accessories) eliminating the necessity of making wire connections. These 1941 fans have grease packed ball-bearings and may easily be relubricated without dismantling the motors.

A Guarantee of Satisfaction

Emerson-Electric Air Circulators are now backed by the famous Emerson-Electric 5-year Factory-to-User Guarantee.

This guarantee, in its 27th year on Emerson-Electric portable and ceiling fans, has become a nationally known symbol for highest quality products. Now that it has been extended to include Air Circulators, fan buyers will receive this added pledge of value, without extra charge.

Four Styles of Mountings

Whatever the requirements, the four types of Emerson-Electric mounting accessories will simplify the installation problem.

The floor column gives portability in addition to two simple adjustments, for directing the breeze as required. Fans mounted on counter columns (low pedestal) are usually installed on top of counters, display cases and in similar places. Both of these accessories have rubber covered extension cords and rubber plugs.

Ceiling mounting and wall bracket accessories give additional means of installation.

SIZE	VOLTS	CURRENT	Speeds	R. P. M. AND WATTS		*Air Delivery C. F. M.	†Air Delivery C. F. M.	WEIGHT		TYPE NO.	CODE WORD	LIST PRICE				
								NET	PKD.							
24"	115	60 cy.	2	1150 rpm	190 watts	4800	6100	37	52	K60-SM	KOCIN	\$54.50				
30"	115	60 cy.	2	750 rpm	110 watts	3140	4000									
				1025 rpm	300 watts	6000	8600									
30"	115	60 cy.	2	550 rpm	120 watts	3220	4600	41	63	K60-SP	KOFAN	62.50				
				1150 rpm	230 watts	4800	6100									
24"	115	D. C.	2	750 rpm	130 watts	3140	4000						39	54	D60-UD	TAROS
30"	115	D. C.	2	1025 rpm	260 watts	6000	8600									
				550 rpm	140 watts	3220	4600	43	64	D60-UF	TAREP	77.50				
Ceiling-Mounting Fittings (no hanger pipe).....					5	6								300	KOCEM	3.25
Adjustable Floor-Column Mounting, Min. 4'11", Max. 8'4", floor to center of fan ..					60	65								100	KOBEL	20.50
Counter-Column Mounting, 1'8", base to center of fan.....					18	20			200	KOCUR	11.50					
Wall-Bracket Mounting, 1'2", extension from wall.....					15	17			400	KODIP	9.75					

*CFM—Cubic feet of air per minute, reading taken (Standard NEMA Test Method) one foot from fan.

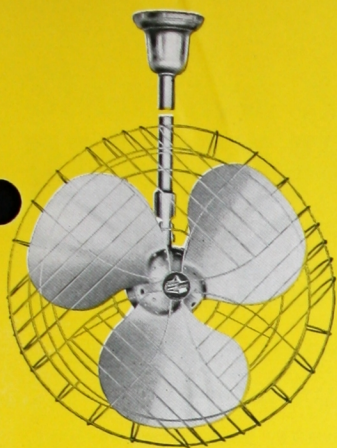
†CFM—Cubic feet of air per minute, reading taken (Standard NEMA Test Method) four feet from fan.

Fans can be furnished specially for 220 volts, 60 cycles. No fans made for voltages higher than 250 volts.

Air Circulator prices apply to fans only, without mounting fittings. Performance data subject to variation of 10% plus or minus. All data subject to change.

Motor packed in box — blades and guard in separate carton.

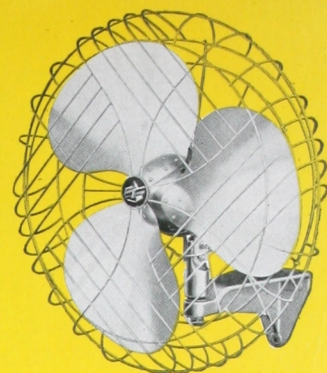
Regularly carried in stock at St. Louis, New York, Chicago and by conveniently located wholesalers.



Ceiling-mounted Emerson-Electric 24-inch Air Circulator. Complete with flange, 4 lag screws and ceiling canopy — no hanger pipe.



Counter-column mounted Emerson-Electric 24-inch Air Circulator. Base drilled for attachment to counter and equipped with protective felt.



Wall-bracket mounted Emerson-Electric 24-inch Air Circulator. Complete with lag screws for attachment to wood construction.

Equipped With Current-Saving **CAPACITOR MOTORS** and Backed by the Famous **5-YEAR GUARANTEE**

Specifications

- MOTOR:** A.C. Fans Capacitor-type, fully enclosed, streamlined design.
D.C. Fans Fully-enclosed motor, brush and commutator type — brushes readily renewable without dismantling motor.
Male section of receptacle located in motor (for connecting female section furnished with accessories).
- SHAFT:** Solid-steel shaft $\frac{5}{8}$ " diameter.
- BEARINGS:** Ball bearings, grease packed.
- LUBRICATION:** As shipped from the factory, fans will give several normal seasons of service before relubrication is necessary. (Approximately 6000 hours.)
- SWITCH:** Canopy pull switch in back cover of motor.
- BLADES:** All types, 3 blades, of formed, heavy-gauge aluminum — highly polished.
- GUARD:** Two-piece ornamental-design guard of heavy-gauge wire — spot welded.
- ADJUSTMENT:** Can be tilted to any position from 8° above horizontal to 25° below horizontal in ceiling mounting or vice versa in column mounting. Insulated with rubber in mounting yoke.
- FINISH:** Front motor cover, motor field ring and mounting yoke attachment finished in aluminum lacquer. Back enclosing shell and blade cone polished chromium plate. Highly polished aluminum blades. Guard finished in Udyllite.

CEILING-MOUNTING FITTINGS:

FLOOR-COLUMN MOUNTING:

COUNTER-COLUMN MOUNTING:

WALL-BRACKET MOUNTING:

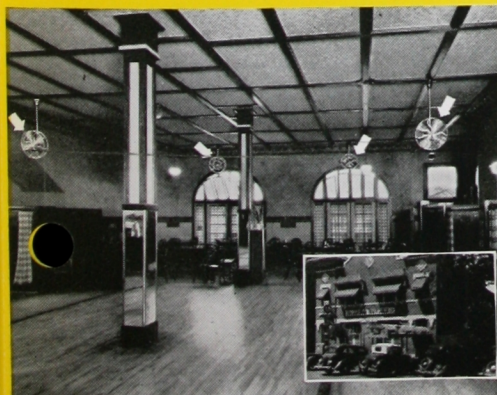
MOUNTING ACCESSORIES

Consist of motor socket finished in polished chromium, round malleable flanged hanger with four lag screws and ceiling canopy finished in aluminum lacquer (no hanger pipe).

Adjustable floor-column mounting permits placing the fan within the following range — minimum 4'11", maximum 8'4", from floor to center of fan. Base drilled for attachment to floor. Furnished with 20 feet of rubber-covered cord and plug, with female section of receptacle for attachment to male section in motor, installed in stand column. Base packed separately. Base finished in black wrinkle with seamless-steel tube finished in polished chromium. Coupling and motor socket finished in polished chromium.

Made in one size with center of fan 1'8" from the bottom of the base. Base drilled for attachment to counter. Furnished with 12 feet of rubber covered cord and plug, and female section of connector, for attachment to motor installed in stand column. Base, motor socket and column finished in polished chromium plate.

Furnished complete with stud, motor socket and lag screws for attachment to wood construction. Extends 14" from wall and provides swivel adjustment to either side. Motor socket finished in polished chromium, bracket in aluminum lacquer.





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Install EMERSON - ELECTRIC High Velocity AIR CIRCULATORS

Keep Workers Cool and Contented
Avoid Fatigue Loss

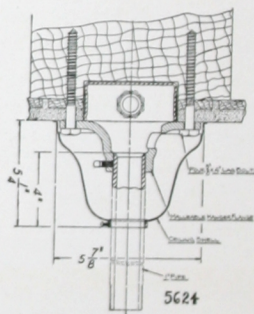
No matter what the condition — whether it is excessive heat, stagnant air, health-wrecking gases or nauseating odors — whether it is a general condition over a large area or a local difficulty — here's a way to whip the trouble, eliminate "fatigue loss" and increase production. Install Emerson-Electric high-velocity Air Circulators and correct the conditions — workers become more congenial, contented, efficient.

Wide Range of Uses

Emerson-Electric Air Circulators provide the most economical cooling and ventilation for all types of business. Their ability to deliver large quantities of cooling, penetrating breezes — to give long hours of continuous trouble-free service — their quiet and low-cost operation make them ideal for modern summer comfort. New uses for Emerson-Electric Air Circulators are being discovered right along — such as cooling closed frame and switch rooms in telephone buildings, air distribution in refrigeration rooms, preventing the entry of flies in food and dairy plants, overall ventilation in steel mills and other heavy industries.

Ceiling Mounting Fittings

Detail drawing showing method of mounting the ceiling flange over outlet box and assembly of hanger pipe and ceiling canopy. Fittings furnished include flange, 4 lag screws and ceiling canopy — no hanger pipe.



CFM-
Met
ICFM-
Met
Fan ca
volts

Standard Air Circulators with the New Spiral, Safety Guard

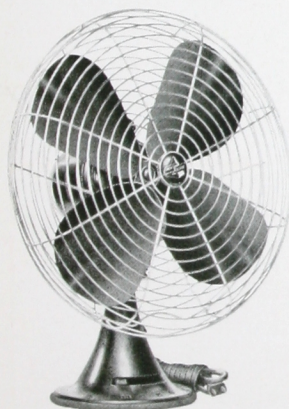
Industrial and commercial installation of Emerson-Electric Air Circulators often require close-spaced guards for additional protection. Fans with these guards are available in four types as listed. The guards are sturdily constructed in two-piece design, of heavy-gauge wire 1/2-inch spacing and spot welded to the guard frame. The entire guard is attractively finished in Udylite to match the fan.

This new design guard is ornamental as well as serviceable, permitting its use in any place where, for safety reasons, it is preferable to the circulator with standard type guard.

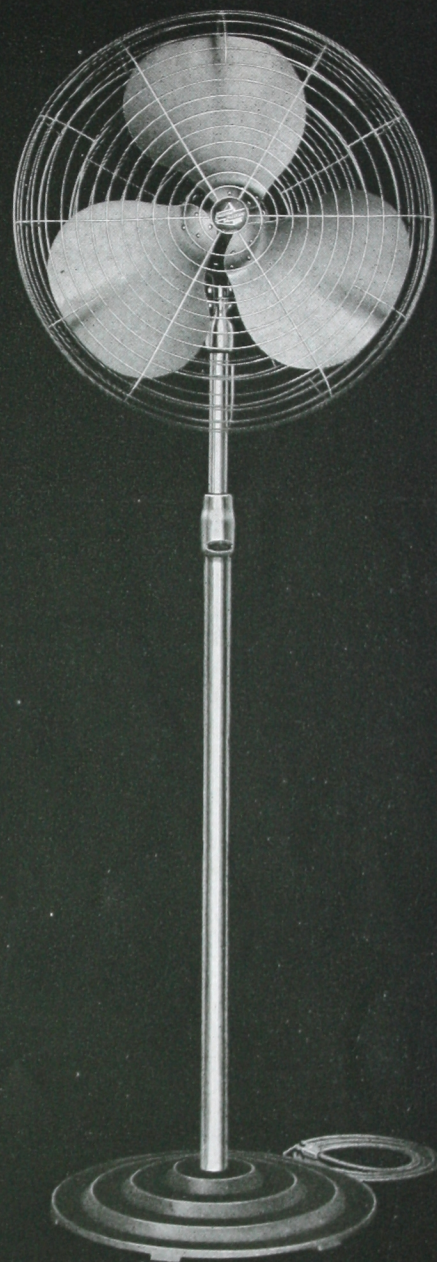
Built for Heavy-Duty Service

Emerson-Electric Air Circulators are favorites in factories, stores and offices the nation over. Rugged, ball-bearing motors, built for heavy duty service, give 6000 hours (3 seasons) of continuous service without re-lubrication; deliver great volumes of cooling, penetrating breezes long distances and do the job at low cost. Installations may be permanent for cooling and ventilating large areas, or portable to take care of localized conditions. Available in 24" and 30" sizes, each with adjustable floor-column, counter-column, ceiling and wall-bracket mounting accessories. All are fully guaranteed for five years.

16-Inch Parker-Blade NON-OSCILLATOR WITH SPIRAL GUARD



A powerful, 3-speed fan, with improved type Parker Blades capable of delivering a large volume of cooling, penetrating breeze. Can be mounted on wall in bracket position, on bench or horizontal support in upright position or installed on an adjustable Emerson-Electric floor stand. Heavy spiral guard makes the fan safe for industrial use, a highly desirable feature. Backed by the famous Emerson-Electric 5-year Factory-to-User Guarantee.



SIZE	VOLTS	CURRENT	Speeds	R. P. M. AND WATTS	*Air Delivery C. F. M.	†Air Delivery C. F. M.	WEIGHT		TYPE NO.	CODE WORD	LIST PRICE
							NET	PKD.			
PARKER-BLADE FAN WITH SPIRAL GUARD											
16"	115	60 cy.	3	{ 1000 rpm 76 watts 850 rpm 65 watts 700 rpm 55 watts }	1345	23	40	78648	SEHAM	\$28.95
AIR CIRCULATORS WITH SPIRAL GUARDS											
24"	115	60 cy.	2	{ 1150 rpm 190 watts 750 rpm 110 watts 1025 rpm 300 watts }	4100	5200	39	54	K60-SM-4	KOFIR	\$60.50
30"	115	60 cy.	2	{ 550 rpm 120 watts 1150 rpm 230 watts }	5100	7400	43	65	K60-SP-4	KOFEP	72.00
24"	115	D. C.	2	{ 750 rpm 130 watts 1025 rpm 260 watts }	4100	5200	42	57	D60-UD-4	TOGIT	75.50
30"	115	D. C.	2	{ 550 rpm 140 watts }	5100	7400	46	67	D60-UF-4	TOSUH	87.00
Ceiling-Mounting Fittings (no hanger pipe).....							5	6	300	KOCEM	3.25
Adjustable Floor-Column Mounting, Min. 4'11", Max. 8'4", floor to center of fan..							60	65	100	KOBEL	20.50
Counter-Column Mounting, 1'8", base to center of fan.....							18	20	200	KOCUR	11.50
Wall-Bracket Mounting, 1'2", extension from wall.....							15	17	400	KODIP	9.75

*CFM—Cubic feet of air per minute, reading taken (Standard NEMA Test Method) one foot from fan, high speed.

†CFM—Cubic feet of air per minute, reading taken (Standard NEMA Test Method) four feet from fan, high speed.

Fans can be furnished specially for 220 volts, 60 cycles. No fans made for voltages higher than 250 volts.

Air Circulator prices apply to fans only, without mounting fittings.

Performance data subject to variation of 10% plus or minus. All data subject to change.

Air Circulators — Motor packed in box — blades and guard in separate carton. Type 78648 packed one fan complete in carton.

Regularly carried in stock at St. Louis, New York and Chicago.



The Modern Way to Summer Comfort

